

ABSTRACT OF THE DISCLOSURE

A method with which all semiconductor lasers can be used as products is provided by regulating reflectance variations of all the semiconductor laser end faces arranged in an electron beam deposition apparatus after completion of deposition to a predetermined range when semiconductor laser end faces are coated. An end face (3) that is placed at a position at which the film thickness is made relatively thicker than those of other coat batches due to the large flux of a deposition beam is inclined by an angle β to adjust the incident angle of the deposition beam. The relationship, actual film thickness (9b) = film thickness (9b) in direction of deposition beams central axis (8a) $\times \cos\beta$, is utilized to reduce the film thickness of the end face (3) to the predetermined range.

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